Publication No. 6E5138
12JUL04
Supersedes 6E5138
13AUG03

INSTALLATION INSTRUCTIONS
for the
5000 BOARD
on the
Kodak X-Omat 180 LP/180 LPS PROCESSORS
Service Codes: 3227, 3198
Kodak X-Omat 270/460/480 RA PROCESSORS
Service Codes: 3059, 3056, 3228
Kodak X-Omat 270/3000 RA INTEGRATED PROCESSORS
Service Codes: 3291, 3488, 3466
Kodak X-Omat 3000/5000 RA PROCESSORS
Service Codes: 3434, 3425

Important
Qualified service personnel must install this component.

HEALTH IMAGING

Confidential
Restricted Information
© Eastman Kodak Company, 2004

PLEASE NOTE The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

No patent license is granted by this information.

Eastman Kodak Company reserves the right to change this information without notice, and makes no warranty, express or implied, with respect to this information. Kodak shall not be liable for any loss or damage, including consequential or special damages, resulting from any use of this information, even if loss or damage is caused by Kodak's negligence or other fault.

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Table of Contents

Description	Page
General Information	3
Electrostatic Discharge	3
PROCESSORS	3
Special Tools	3
Packing List	4
Installation	5
Installing the New 5000 BOARD in the 270/3000/5000 RA PROCESSORS and the 270/3000 INTEGRATED PROCESSORS	5
Installing the New 5000 BOARD in the 180LP and 180LPS PROCESSORS	6
Installing the New 5000 BOARD in the 460/480 RA PROCESSORS	9
Installing the OPERATING SOFTWARE	10
Checking the Operation	11

Section 1: General Information

Electrostatic Discharge

ESD

Possible damage from electrostatic discharge.

Electrostatic discharge (ESD) is a primary source of:

- product downtime
- low productivity
- repairs

While you cannot feel a static charge of less than 3,500 volts, as few as 30 volts can damage or destroy essential components in electronic equipment.

Preventive Measures

- Always look for an ESD warning label before doing any procedure involving static-sensitive components such as BOARDS. All static-sensitive components are marked with bright graphic labels which frequently include instructions. Follow all label instructions.
- Wear a GROUNDING STRAP when handling static-sensitive components. Always be sure that the CLIP remains fastened to a correctly grounded, not painted or contaminated surface.
- Repair static-sensitive components at an ESD-protected work station or use a portable GROUNDING MAT. For help in setting up an ESD-protected work station, contact your Kodak representative.
- When moving static-sensitive components from one area to another, insert and transport the components in ESD-protective packaging.

PROCESSORS

The 5000 BOARD can be used on:

- *Kodak X-Omat* 3000/5000 RA PROCESSOR
- *Kodak X-Omat* 180 LP/180 LPS PROCESSORS, with a CONVERSION KIT and the correct software
- *Kodak X-Omat* 270/ 3000 RA INTEGRATED PROCESSORS, with the correct software for both PROCESSOR and MULTILOADER
- *Kodak X-Omat* 480 RA and 460 RA PROCESSORS, with the E3 JUMPER and the correct software
- *Kodak X-Omat* 270 PROCESSOR, with the correct software

Special Tools

Tool No.	Description
TL-2020	CRIMPING TOOL
TL-2275	WIRE STRIPPING TOOL
TL-4598	PIN EXTRACTION TOOL
TL-4391	LAPTOP INTERFACE CABLE
---	LAPTOP COMPUTER

Packing List

Important

- The following items are necessary to do this installation. For additional information, see the SERVICE BULLETIN No. 295, 7E6626.
- For a 500 BOARD replacement with a new 5000 BOARD, you must use the CONVERSION KIT 4E5490 for these procedures.

For a 5000 BOARD replacement with a new 5000 BOARD:

Part No.	Description	Quantity
6E5142	5000 BOARD	1
6F2420	CD - Software	1
6E5138	INSTALLATION INSTRUCTIONS	1
4E9709	SOFTWARE INSTRUCTIONS	1

For a 500 BOARD replacement with a new 5000 BOARD, CONVERSION KIT 4E5490:

Part No.	Description	Quantity
6E5142	5000 BOARD	1
6F2420	CD - Software	1
---	SPECIAL CONNECTOR	1
---	LABEL	1
---	WIRE TIES	3
---	CABLE CLAMP HOLDER	1
---	SCREWS	2
---	CLOSED-END SPLICE	1
---	WIRE EXTENSION	1
6E5138	INSTALLATION INSTRUCTIONS	1
4E9709	SOFTWARE INSTRUCTIONS	1
6F6867	K5001 JUMPER	1

Section 2: Installation

Installing the New 5000 BOARD in the 270/3000/5000 RA PROCESSORS and the 270/3000 INTEGRATED PROCESSORS

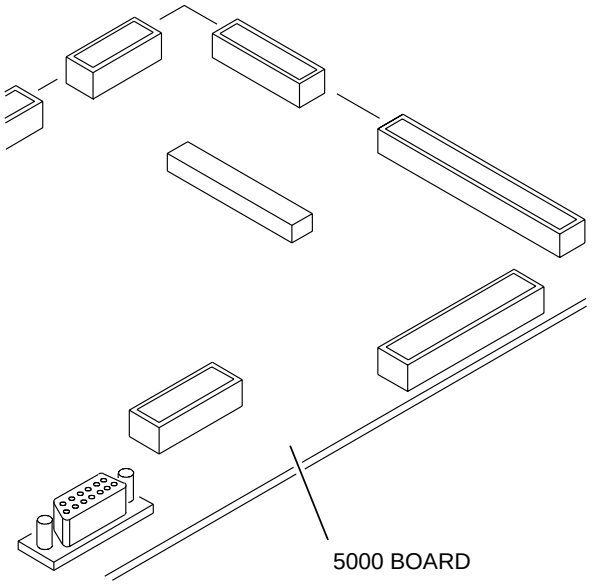
ESD
Possible damage from electrostatic discharge.

[1] Record the set points, other than the original defaults, for:

- replenishment rates
- temperatures
- transport speeds

Note

- For 180 LP/180 LPS PROCESSORS, see the USER MANUAL 5B9623.
- For all other PROCESSORS, see the corresponding OPERATOR or USER MANUAL.



H150_0239GCA
H150_0239GC

Warning
Dangerous Voltage

[2] De-energize the PROCESSOR.

[3] Disconnect all of the CONNECTORS from the BOARD.

[4] Remove and discard the BOARD. Keep the hardware.

[5] Align the new 5000 BOARD with the existing STANDOFFS.

[6] Install the new 5000 BOARD. Use the existing hardware.

[7] Connect all the CONNECTORS.

[8] Advance to "Installing the OPERATING SOFTWARE" on Page 10

Installing the New 5000 BOARD in the 180LP and 180LPS PROCESSORS

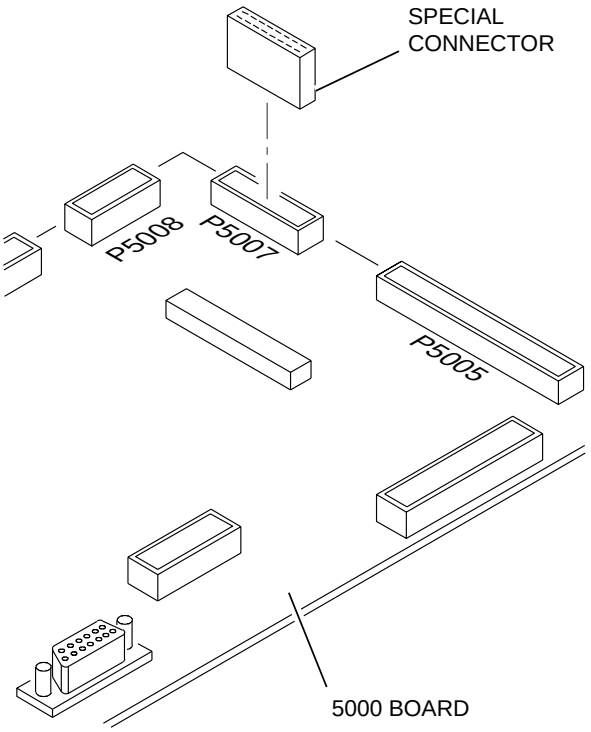
ESD
Possible damage from electrostatic discharge.

[1] Record the set points, other than the original defaults, for:

- replenishment rates
- temperatures
- transport speeds

Note

- For 180 LP/180 LPS PROCESSORS, see the USER MANUAL 5B9623.
- For all other PROCESSORS, see the corresponding OPERATOR or USER MANUAL.



H150_0234GCA
H150_0234GC

Warning
Dangerous Voltage

[2] De-energize the PROCESSOR.

[3] Disconnect all of the CONNECTORS from the BOARD.

Important
If the PROCESSOR does not have a SORTER, a SPECIAL CONNECTOR is installed in P5007.

[4] If necessary, remove and keep the SPECIAL CONNECTOR from P5007.

[5] Remove and discard the BOARD. Keep the hardware.

Important
Do not connect any wires to the SPECIAL CONNECTOR.

[6] If necessary, install the SPECIAL CONNECTOR to P5007 on the new 5000 BOARD.

[7] Align the new 5000 BOARD with the existing STANDOFFS.

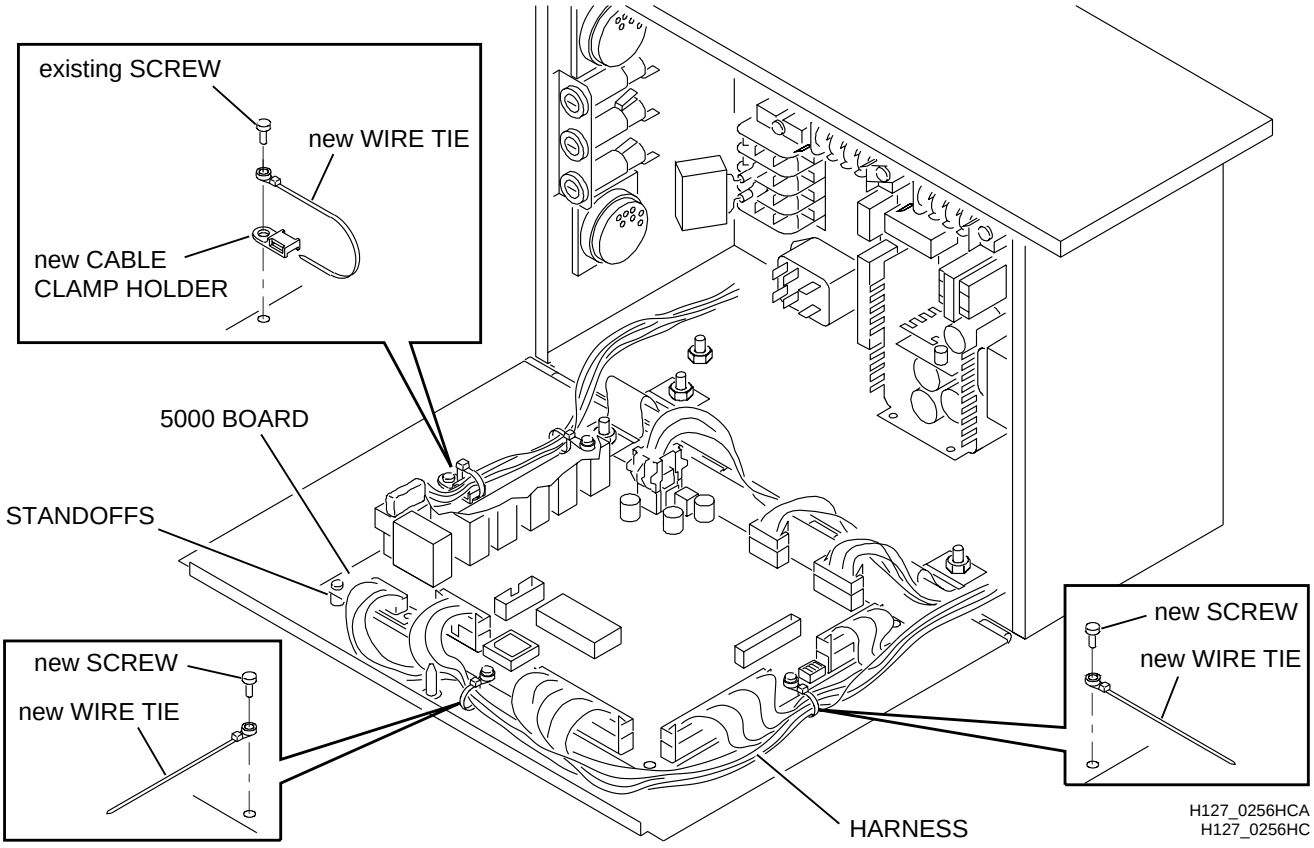
[8] Are you installing the new 5000 BOARD for a 500 BOARD in a 180 LP/180 LPS PROCESSOR?

Yes	No
Advance to Step 12.	Continue with Step 9.

[9] Install the new 5000 BOARD. Use the existing hardware.

[10] Connect all the CONNECTORS.

[11] Advance to "Installing the OPERATING SOFTWARE" on Page 10



Warning

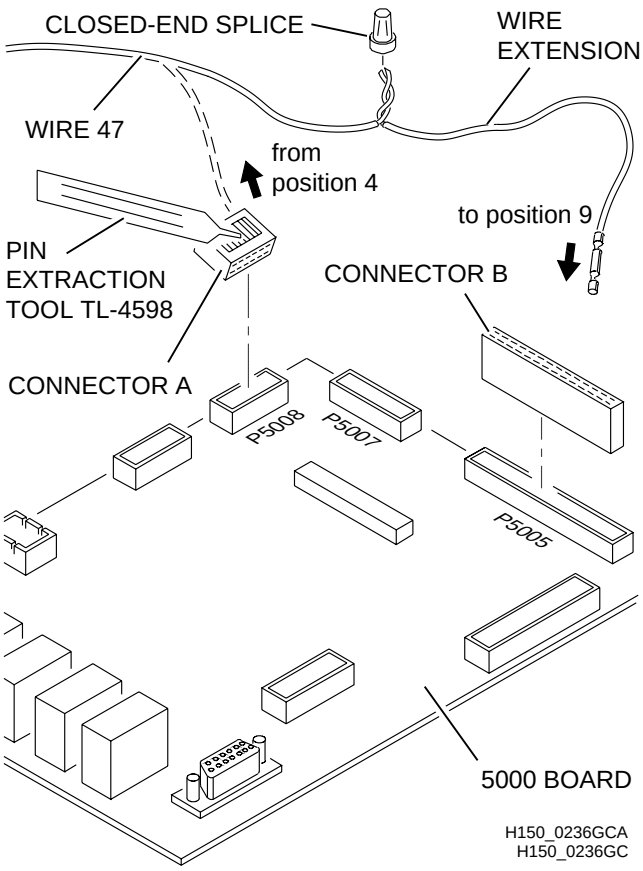
- Dangerous Voltage
- Do not use the existing WIRE TIES to fasten the HARNESS to the BOARD.

[12] Use the existing SCREWS to fasten the 3 corners of the 5000 BOARD to the STANDOFFS.

[13] Use the 2 new SCREWS and the 2 new WIRE TIES to fasten the HARNESS to the surface of and through the BOARD.

[14] Use the new CABLE CLAMP HOLDER and the existing SCREW to fasten the HARNESS below the left side of the BOARD.

[15] Connect all the CONNECTORS.



[16] Is your equipment a 180 LP PROCESSOR with a SORTER?

Yes	No
Continue with Step 17.	Advance to Step 24.

[17] Disconnect the CONNECTOR A at P5008 on the new 5000 BOARD.

[18] Remove the WIRE 47 from position 4 on the CONNECTOR A. Use PIN EXTRACTION TOOL TL-4598 or a similar tool.

[19] Remove approximately 5 mm (0.25 in.) of the INSULATION from WIRE 47. Use WIRE STRIPPING TOOL TL-2275.

[20] Connect:

- CONNECTOR A to P5008
- one end of the new WIRE EXTENSION included with the CONVERSION KIT for the 5000 BOARD to the end of WIRE 47, by wrapping the WIRE EXTENSION around WIRE 47

[21] Insert the wrapped wire ends into the CLOSED-END SPLICE. Use CRIMPING TOOL TL-2020 to close the splice.

[22] Insert the other end of the WIRE EXTENSION into position 9 of CONNECTOR B.

[23] Connect:

- CONNECTOR B to P5005
- all the CONNECTORS

[24] Advance to “Installing the OPERATING SOFTWARE” on Page 10.

Installing the New 5000 BOARD in the 460/480 RA PROCESSORS

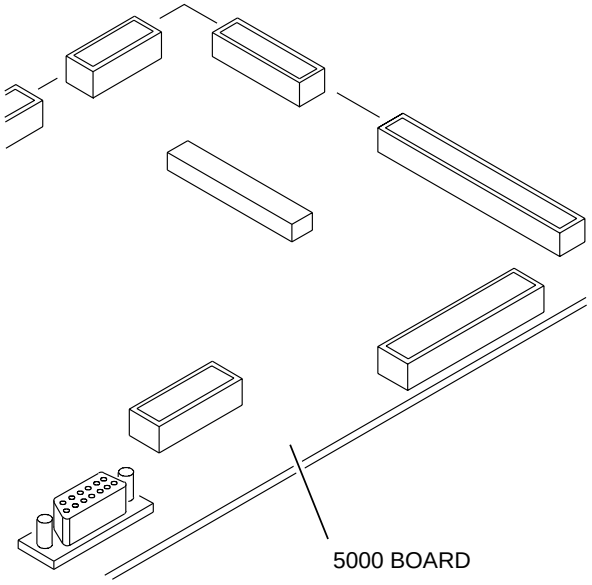
ESD
Possible damage from electrostatic discharge.

[1] Record the set points, other than the original defaults, for:

- replenishment rates
- temperatures
- transport speeds

Note

- For 180 LP/180 LPS PROCESSORS, see the USER MANUAL 5B9623.
- For all other PROCESSORS, see the corresponding OPERATOR or USER MANUAL.



H150_0239GCA
H150_0239GC

Warning
Dangerous Voltage

[2] De-energize the PROCESSOR.

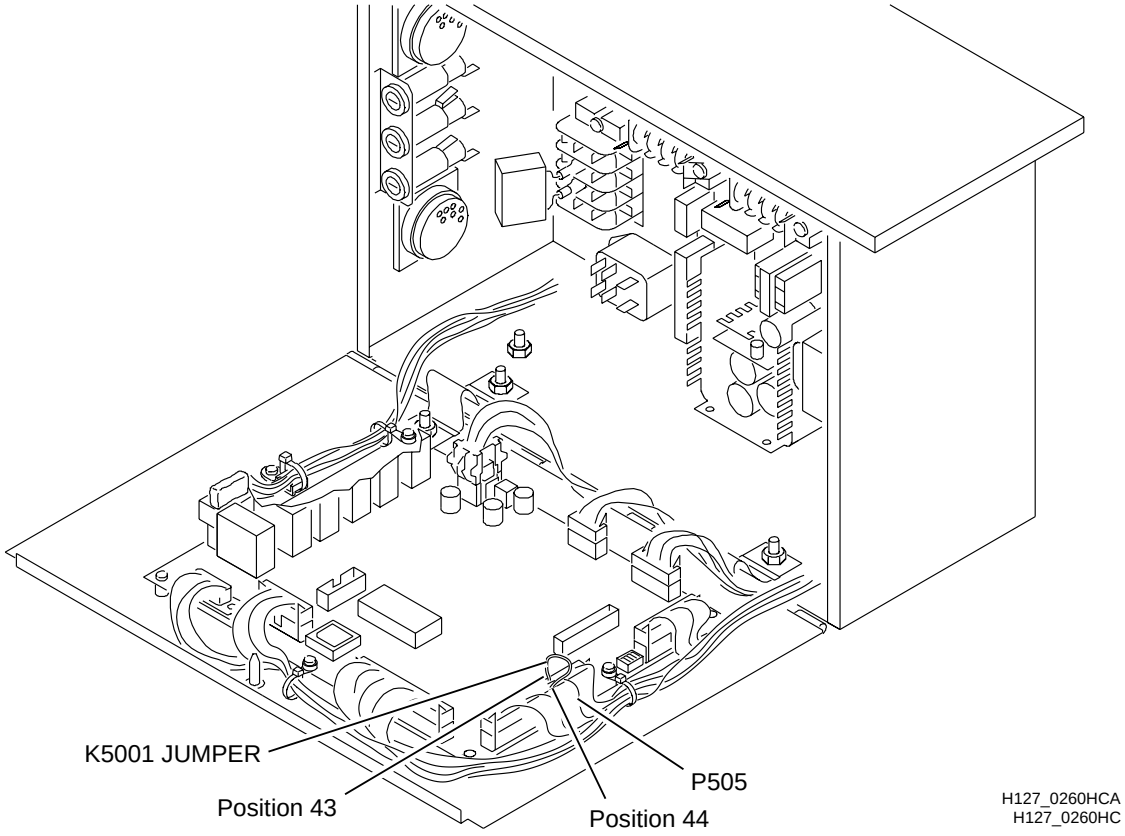
[3] Disconnect all of the CONNECTORS from the BOARD.

[4] Remove and discard the BOARD. Keep the hardware.

[5] Align the new 5000 BOARD with the existing STANDOFFS.

[6] Are you installing the new 5000 BOARD for a 500 BOARD in a 460/480 RA PROCESSOR?

Yes	No
Continue with Step 7.	Advance to Step 8.



Important

The K5001 JUMPER might be installed on some 480 RA PROCESSORS.

[7] Install the K5001 JUMPER into position 43 and 44 of the P505 CONNECTOR.

[8] Install the new 5000 BOARD. Use the existing hardware.

[9] Connect all the CONNECTORS.

[10] Advance to "Installing the OPERATING SOFTWARE" on Page 10

Installing the OPERATING SOFTWARE

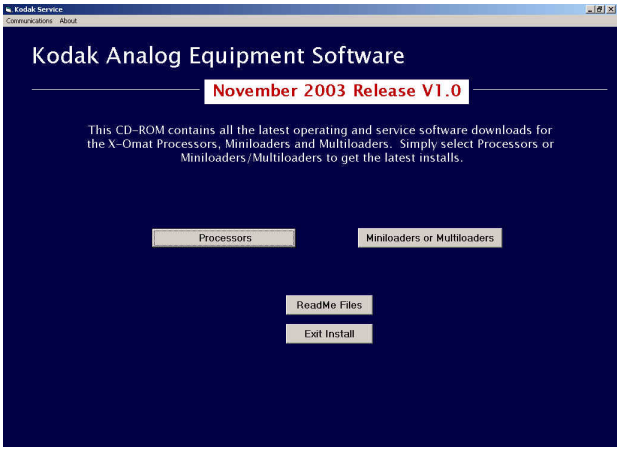
[1] Install the new PROCESSOR OPERATING SOFTWARE using the Software CD. See the SOFTWARE INSTRUCTIONS for the OPERATING SOFTWARE 4E9709.

Important

For a 460 RA PROCESSOR you must have the 5600 BOARD with BOOT E PROM V2.50 or higher when doing the installation for the 5000 BOARD.

[2] Are you doing a replacement of a 500 BOARD to a new 5000 BOARD for a 3000 RA INTEGRATED PROCESSOR in a *Kodak X-Omat* MULTILOADER 300 PLUS or a 270 RA INTEGRATED PROCESSOR in a *Kodak X-Omat* MULTILOADER 300?

Yes	No
Continue with Step 3.	Advance to Checking the Operation.


Kodak Service
Communications About
Kodak Analog Equipment Software
November 2003 Release V1.0
This CD-ROM contains all the latest operating and service software downloads for the X-Omat Processors, Miniloaders and Multiloaders. Simply select Processors or Miniloaders/Multiloaders to get the latest installs.
Processors
Miniloaders or Multiloaders
ReadMe Files
Exit Install

Important

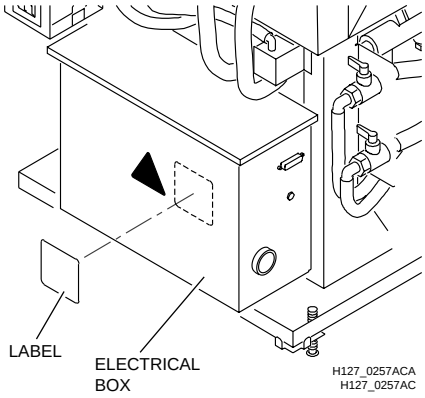
The OPERATING SOFTWARE for the MULTILOADER is located on the Software CD.

[3] Install the OPERATING SOFTWARE for the MULTILOADER:

- Version 4.10 or higher for the *Kodak X-Omat* MULTILOADER 300 with BOOT E PROM 4.00 or higher
- Version 5.21 or higher for the *Kodak X-Omat* MULTILOADER 300 PLUS with BOOT E PROM 5.00 or higher

[4] Do the instructions on the screen.

Checking the Operation



[1] If doing a replacement of a 500 BOARD to a new 5000 BOARD, fasten the new LABEL to the ELECTRICAL BOX of the PROCESSOR.

Note

The LABEL is included in the CONVERSION KIT.

[2] Energize the equipment.

[3] Check for correct operation.

[4] Enter the set points that you recorded. See the USER MANUAL for instructions on changing the set points.

Publication History

Publication Date	Publication No.	ECO No.	Changed Pages	File Name	Notes
20APR01	6E5138	---	All	6E5138.fm	New Publication
17MAY01	6E5138	---	Page 10	6E5138.fm	Revised
25JAN02	6E5138	--	Pages 1, 3-7, and 10	6e5138.fm	Revised
13AUG03	6E5138	--	All	6e5138.fm	Revised
12JUL04	6E5138	--	All	6e5138.fm	Revised

Kodak and *X-Omat* are trademarks.

Printed in U.S.A. • 6e5138.fm

EASTMAN KODAK COMPANY
Rochester, NY 14650

HEALTH IMAGING